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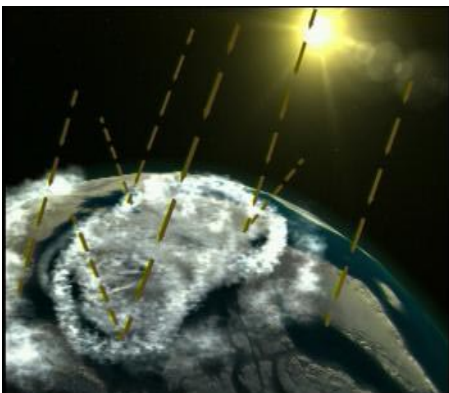
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October 10, 2000

NASA Scientist Predicts Less Climate Cooling From Clouds

Don't count on clouds to come to the rescue if the Earth's current climate-warming trend continues. That's according to new NASA research published in the October 1st issue of the American Meteorological Society's Journal of Climate.

Heating and cooling of the Earth are influenced by cloud cover. Clouds can act as a natural sun shield by reflecting light back into space. But clouds can also coat the skies like a blanket, trapping warmth.



NASA GSFC Image

Precisely how these competing attributes will change in response to a warmer atmosphere is not well understood. Anthony Del Genio of NASA's Goddard Institute for Space Studies in New York City, analyzed three years of observations of low clouds over land, a type of cloud thought likely to contribute to future cooling.

Some climate theories predict that a warmer atmosphere would evaporate more water, and this additional water vapor would form thicker clouds. However, Del Genio's research found that when air temperatures were higher, clouds were thinner and less capable of reflecting sunlight. These thinner clouds occurred regardless of weather conditions, season, or time of day.

"The bottoms of the clouds rise with warmer temperatures and the clouds become thinner," Del Genio explains. "When low clouds are present, warmer air flowing over land tends to be drier. As a parcel of dry air rises, it has to rise farther before it saturates with enough water to form the cloud base."

How much warmer will the climate become? Del Genio believes a theory that rising carbon dioxide levels would have only a slight impact on global temperatures is flawed because it doesn't take into account real-world cloud behavior.

"The minimum amount of warming predicted by scientists - 3 degrees Fahrenheit (1.5 degrees Celsius) - should be increased by at least 1 degree F as a result of the new findings," Del Genio asserts.

The current range of 21st century warming, according to the Intergovernmental Panel on Climate Change (IPCC), is 3-8 degrees F (1.5-4.5 degrees C).

The finding is based on more than 3,000 individual cloud "snapshots" collected between 1994 and 1997 at the Department of Energy's (DOE) Atmospheric Radiation Measurement Southern Great Plains field station in Oklahoma. Using a unique suite of ground-based and satellite instruments, each snapshot records the air temperature, the height of the bottom and top of the cloud, and the amount of liquid water in the cloud. The more liquid water in a cloud and the thicker the cloud, the more opaque it is and the more sunlight it reflects.

"Use of these data from the Department of Energy by NASA researchers demonstrates the value of the United States Global Change Research Program for studies of our global environment," said Dr. Ghassem Asrar, Associate Administrator for NASA's Office of Earth Sciences. "This program allows NASA to share in the wealth of data our sister agencies gather, complementing satellite, air and ground data for use by the whole Earth Sciences community."

The relationship between cloud thinning and temperature was initially observed in 1992 over much of the world with long-term satellite observations. George Tselioudis, William Rossow and David Rind of the NASA Goddard Institute for Space Studies published the observation using the NASA-funded International Satellite Cloud Climatology Project (ISCCP) database, a global composite of cloud observations from international weather satellites.

"Our new research demonstrates that the global observations of cloud thinning with warming in the ISCCP data are valid in at least one location," says Del Genio. "And the satellite data suggest that this is not a phenomenon peculiar to the U.S. Great Plains, but one that occurs in many parts of the world."

Wallops Shorts.....

Quarterly Award

Congratulations to The Women of Wallops Federal Women's Program on receiving a Goddard Space Flight Center Quarterly Award for Outstanding Teamwork. The award reads: "In recognition of your outstanding efforts in support of the advancement and well-being of the Women of Wallops."

Balloon Launch

A NASA scientific balloon was successfully launched from Ft. Sumner, N.M. on Oct. 4. The 29.47 million cubic foot balloon carried a gamma ray, x-ray astrophysics experiment for Dr. Elena Aprile, Columbia University. Total flight time was 27 hours, 17 minutes.

Speaker's Bureau

Bill Krabill, Observational Science Branch, was the evening guest speaker at the B.P. Global Network Conference in Houston, Texas on Oct. 4.

Betty Flowers and McKea Scarborough, Public Affairs Office and Brooke Byrd-Joyes, Ground Network Project, staffed a Wallops exhibit at the Wachapreague Fall Festival on Oct. 7.

Keith Koehler, Public Affairs Office, staffed a Wallops exhibit at the Sussex County (DE) Stamp Show on Oct. 7.

Wallops OktoberFest Fall Picnic

October 21, 2000

Wallops Ball Field, noon - 5 p.m.

For additional information contact Bev Hall, x1714.

Navy Thanks to NASA Personnel

On behalf of the Navy, I thank everyone in the Wallops Partnership for their support of the recent CEC event (Underway #10), September 25 and 26.


NASA personnel response to requested support was enthusiastic. Guards were knowledgeable and helpful, custodial crews worked extra long hours, radio comms were efficient and effective and the events were crisp. Aircraft arrivals and departures were well-orchestrated.

Everything worked well. The event was a resounding success for the Wallops Team.

Steve Habeger,
Executive Director, SCSC

Autumn's Arrival
Ted Wilz, Senior Meteorologist

September, much like August, continued the cool weather trend that has persisted throughout the Eastern Shore this summer.

 Temperatures averaged 1.8 degrees below normal for much of the month, making many of the last days of summer seem very “fall-like.” Although September was a very cool month, no new record low temperatures were set. We actually set a new record high on Sept. 13 when we reached 87 degrees, the highest temperature recorded during the month. On three of the last four days of September, the morning low temperature was in the 40’s.

September was a rather cool month and was unremarkable precipitation-wise. We recorded 3.69 inches of rainfall, which is just .17 inch above our monthly norm. Although it wasn’t an extremely wet month, it was fairly cloudy with measurable rainfall being recorded on 10 days, instead of the monthly average of 7. On a positive note, however, we had no prolonged periods of heavy rain or long periods of no rainfall keeping everything green and healthy.

As November approaches, it’s time to unpack those winter coats. November brings a real chill to the area as leaves fall from the trees and freezing temperatures begin to move in.

Average high temperatures in early November are usually in the mid-60’s, decreasing to the low to mid-50’s by the end of the month. Low temperatures start out in the upper 40’s but are in the mid-30’s as December approaches. November can have some extreme temperature variances. The all-time record high is 83 degrees, and the all-time low is 19 degrees.

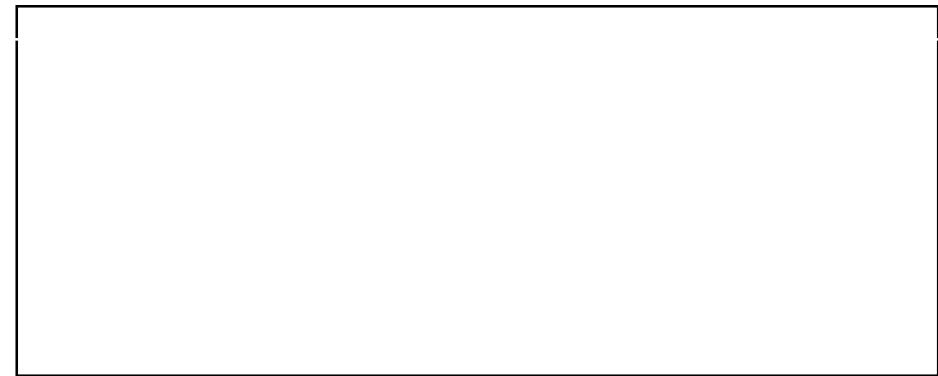
November is one of our drier months with only an average of 2.81 inches of precipitation; it can bring the first taste of wintry weather such as snow and sleet.

It’s not too early to prepare your vehicles and heating systems for what lies ahead.

Mark your calendar for:

The American Red Cross Blood Drive on Oct. 24, 9:30 a.m. to 2:30 p.m., Bldg. F-3. For an appointment call the Health Unit, x1266.

The Semi-annual Navy Family Housing Yard Sale on Oct. 28, 7:30 a.m. to 1:30 p.m. Sales will be in the old base house and new base housing areas.



**Create hope and opportunity.
Reach out Do it for love!**



The Combined Federal Campaign’s (CFC) tradition of commitment to the community through the selfless efforts of Federal employees has its roots in the many charitable campaigns of the early 1960’s.

Seeing a need to bring the diversity of fundraising efforts under one umbrella, Federal employees created the CFC — one campaign, once a year.

By allowing employees to select the organizations of their choice from a single brochure and to make their contributions through payroll deductions, the CFC opened wide the door to more opportunities for generous giving to literally hundreds of worthy causes. An Executive Order made the CFC a reality, and turned an innovative idea into a uniquely effective way for Federal employees to help those in need in our local community and throughout the world. The CFC is the only authorized solicitation of employees in the Federal workplace on behalf of charitable organizations. It continues to be the largest and most successful workplace fundraising model in the world.

Many local, national and international voluntary agencies will benefit from your thoughtfulness and generosity. Payroll deduction makes it convenient to give by letting you spread your contribution across the entire year. Payments on payroll deduction pledges begin on the first pay period in January.

All Federal employees have the right to contribute or not to contribute to the CFC. The choice is yours. The 2000 Eastern Shore Area CFC brochure has arrived and is being distributed.

This year’s CFC Fun Day featuring a chili cook-off and volleyball tournament is scheduled for Oct. 26, 11 a.m. to 1 p.m., at the Softball Field.

For more information on the CFC visit: www.opm.gov/cfc To register for the chili cook-off contact Catherine Donnelly, x1569.

Life Skills Workshop

The Employee Assistance Program will host a 2-day (12 hour) workshop at Wallops on Life Skills to use at work and at home.

This workshop, to be held Oct. 26 and 27, is designed to help participants improve communication with co-workers and family members, to reduce non-productive levels of stress and to facilitate team building at work and at home. Life Skills has been shown effective for improving physical well being and improving healthy relationships through cultivating the basics of emotional intelligence.

Registration is limited to 12 people and being offered on a first-come, first-serve basis. The first session, Oct. 26, will meet at 8 a.m. in the conference room in Building E-2. For additional information or to register call the EAP, x66-4600.

October is National Breast Cancer Awareness Month

Mobile Mammography Screenings

Mammography detects cancer. Early detection saves lives. As a woman, you should want more ways to arm yourself against a form of cancer that strikes one in nine women. The American Cancer Society recommends scheduling your first, or baseline, mammogram by age 40 and every year after.

Sentara operates a mobile mammography unit that is accredited by the American College of Radiology. Every member of the all-female staff is certified in mammography.

The Sentara Mobile Mammography Unit will make its yearly trip to Wallops Flight facility on Nov. 1 to conduct mammography screenings. Call the Health Unit, x1766 with any questions and to coordinate an appointment. Appointments need to be made as soon as possible.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees.

Editor
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Printing Management Office

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